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Radical hypofractionated VMAT-RA for stage III NSCLC in the elderly: feasibility and toxicity.

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Purpose or Objective: Purpose: To analyze feasibility and toxicity of radical hypofractionated RT schedules in elderly patients with NSCLC

Material and Methods: Material and methods: Elderly patients (≥70 years old) affected by stage III inoperable NSCLC were treated in our institution with radical IMRT (VMAT RA) according to moderately hypofractionated schedules: 56 Gy/20 fractions or 55 Gy/22 fractions or 50 Gy/20 fractions depending on dose constraints of adjacent organs at risk. Patients underwent simulation CT in supine position, immobilized with a thermoplastic mask. PET CT was performed for simulation and coregistered with CT. Primary end point of this analysis were acute and late toxicities, secondary end points were local control and overall survival.

Results: Results: 41 patients, treated between January 2013 and April 2015, were included in this analysis. Mean age was 78.59 years (range 70-86). 22 patients were staged IIIA, 19 patients IIIB. All but one patients had pathological nodal involvement (N1:5, N2: 24, N3: 11). Most of patients were unsuitable for chemotherapy for comorbidities and poor general conditions. 15 patients received chemotherapy before RT, concomitant RT-CHT was not allowed. Acute G1-2 toxicity was recorded in 25 patients (61), mostly esophagitis, dyspnea and dry cough. Late toxicity was recorded in 13 patients, the most reported side effects were pneumonitis and dyspnea. No G3 or G4 acute or late toxicity were recorded. A complete response was obtained in two patients, 26 showed a partial response, while progressive disease was recorded in 2 cases. At time of analysis, with a mean follow up of 9.89 months (range 1.08-25.43), 17 patients died for disease progression, one patient died for other causes, 8 patients were alive with distant metastases and 15 were alive without distant progression. Actuarial OS at 1 and 2 years were 51.3% and 35.1% respectively. Mean estimated OS was 15.12 months (range 12.02-18.22). Actuarial local control at 1 and 2 years were 72%. 10 patients experienced local progression. Mean estimated LC was 12.4 months (range 9.6-15.1).

Conclusion: Conclusion: Radical hypofractionated IMRT (VMAT RA) is a valid treatment for locally advanced inoperable NSCLC in elderly frail patients. Our study shows that this approach is safe and feasible also in a fragile elder population. Survival data are satisfactory.

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Short-course accelerated palliative radiation therapy for advanced solid cancers in elderly patients

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Purpose or Objective: To assess the efficacy and safety of a Short-course Accelerated Radiation therapy (SHARON) regimen in the palliative treatment of locally advanced or metastatic cancers in elderly patients.

Material and Methods: Eligibility criteria of this analysis (pooled analysis of 3 phase II studies) were: patients with histologically confirmed solid cancers, age ≥80 years, patients with an expected survival > 3 months and Eastern Cooperative Oncology Group (ECOG) performance status of ≤ 3. The primary endpoint was to evaluate the symptoms response rate produced by a radiotherapy regimen based on the delivery of 4 radiotherapy fractions (5 Gy per fraction) with a twice daily fractionation in two consecutive days

Results: Twenty-four patients were included in this analysis. Characteristics of the patients were: male/female: 17/7; median age: 87.0 years (range: 80-98). ECOG performance status was < 3 in 16 patients (66.7%). Six patients (25.0%) had locally advanced thoracic cancers, 13 patients (54.2%) had advanced primary or metastatic H&N tumors and 5 patients (20.8%) had complicated bone metastases. With a median follow-up time of 5.0 months (range, 1 to 8 months), eleven G1-G2 acute skin (45.9%) and G1-2 mucositis (12.5%) toxicities were recorded. One patient (4.2%) experienced G1 acute gastro-intestinal toxicity and only 1 patient (4.2%) experienced G3 acute mucositis. Of 24 symptomatic patients, 19 showed an improvement or resolution of baseline symptoms (overall palliative response rate: 79.2%). Three-months overall survival was 89.7% (median survival time: 7.0 months; 95%CI 5.4-8.6 mo). Median survival without symptoms progression was 5.0 months (95%CI: 2.5-7.5 mo). In 23 patients with pain, a significant reduction of this symptom was recorded in terms of VAS (mean baseline VAS vs mean VAS after treatment: 3.9 versus 1.7, p=0.001).

Conclusion: Short-course accelerated radiotherapy in locally advanced or metastatic cancers is effective in terms of symptom relief and well tolerated even in older patients.

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The role of radiotherapy in the conservative treatment in bladder cancer elderly patients

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Purpose or Objective: The optimal treatment of bladder cancer has been a subject of continuous controversy. In North America, as well as in Europe, the radical cystectomy as the standard option for invasive bladder cancer. In the western countries the elderly ones constitute the part of the population in more rapid growth and, insofar, the group to